



8011-01P

## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-83690; File No. SR-ICC-2018-004]

Self-Regulatory Organizations; ICE Clear Credit LLC; Order Approving Proposed Rule Change Relating to Formalization of the ICC Model Validation Framework

July 24, 2018

### I. Introduction

On May 23, 2018, ICE Clear Credit LLC (“ICC”) filed with the Securities and Exchange Commission (“Commission”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”),<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> a proposed rule change to formalize the ICC Model Validation Framework. The proposed rule change was published in the Federal Register on June 12, 2018.<sup>3</sup> The Commission has not received any comments on the proposed rule change. For the reasons discussed below, the Commission is approving the proposed rule change.

### II. Description of the Proposed Rule Change

---

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> Securities Exchange Act Release No. 34-83386 (June 6, 2018), 83 FR 27360 (June 12, 2018) (SR-ICC-2018-004) (“Notice”).

The proposed rule change would formalize the ICC Model Validation Framework (“Framework”), which sets forth ICC’s model validation procedures.<sup>4</sup> Through the use of these model validation procedures, ICC determines the effectiveness of the risk models underpinning ICC’s risk management system, considers new components and enhancements to existing components of the risk models, and monitors and validates on an ongoing basis the risk models. The Framework also describes the personnel responsible for, and the governance process associated with, the successful operation and maintenance of the model validation procedures. Specifically, the Framework designates ICC’s Risk Oversight Officer (“ROO”) as the Framework owner and makes the ROO responsible to the ICC President for the successful operation and maintenance of the Framework.<sup>5</sup>

ICC has a proprietary risk management system that uses models to assess the risk of the credit default swap-based portfolios that ICC clears. ICC uses its risk management system to determine the appropriate Initial Margin and Guaranty Fund requirements that offset the risks of the credit default swap-based portfolios ICC clears. The risk management system is composed of risk model components (“Model Components”), which employ a combination of statistical analysis of credit spread time series and stress test simulation scenarios to address different sources of risk. These sources of risk

---

<sup>4</sup> Notice, 83 FR at 27361. Capitalized terms used herein but not otherwise defined have the meaning set forth in the Framework and ICE Clear Europe rulebook, which is available at <https://www.theice.com/clear-europe/regulation#rulebook>.

<sup>5</sup> Notice, 83 FR at 27361.

addressed by the Model Components constitute the foundation of total Initial Margin and Guaranty Fund requirements for the credit default swap-based portfolios that ICC clears.<sup>6</sup>

The Framework considers both new Model Components and enhancements to existing Model Components (collectively, “Model Change”). New Model Components consider sources of risk that are not currently included in the risk management system.<sup>7</sup> Enhancements to existing Model Components improve upon the methodologies already used by the risk management system to consider a given source or sources of risk.<sup>8</sup> The Framework classifies Model Changes as either Materiality A or Materiality B, depending on how substantially the Model Change affects the risk management system’s assessment of risk for the related source or sources of risk.<sup>9</sup> Materiality A Model Changes substantially affect the risk management system’s assessment of risk for the related source or sources of risk. Materiality B Model Changes do not substantially affect the risk management system’s assessment of risk for the related source or sources of risk. The Framework requires that the ICC Chief Risk Officer (“CRO”) and the ROO review and determine which enhancements to the risk management system qualify as Model Changes and classify Model Changes as Materiality A or B.<sup>10</sup> The Framework requires that the ICC Risk Committee review the materiality classifications and provide feedback

---

<sup>6</sup> Id.

<sup>7</sup> Id.

<sup>8</sup> Notice, 83 FR at 27361.

<sup>9</sup> Id.

<sup>10</sup> Id.

as necessary.<sup>11</sup> The Framework also describes the Model Inventory which is maintained by the ICC Risk Department and which contains key information about all Model Components and Model Changes.<sup>12</sup> The Framework requires that the ICC ROO review the model inventory at least quarterly to ensure that it contains accurate and up to date information relating to Model Components and Model Changes.<sup>13</sup>

To assure the effectiveness of ICC's risk management system, the Framework employs four controls: initial validation; ongoing monitoring and validation; investigation; and independent periodic review.<sup>14</sup> Before going live with any Model Change, the Framework requires an initial validation of the conceptual soundness of the methodology and the proposed ongoing monitoring and validation approach.<sup>15</sup> In addition, the Framework subjects Materiality A Model Changes to an additional independent initial validation.<sup>16</sup>

Ongoing monitoring and validation provides assurances that ICC has appropriately configured and calibrated the risk management system, including any recent Model Change, and that the risk management system is achieving the desired level of performance.<sup>17</sup> Ongoing monitoring and validation consists of three areas: parameter

---

<sup>11</sup> Id.

<sup>12</sup> Id.

<sup>13</sup> Id.

<sup>14</sup> Notice, 83 FR at 27361.

<sup>15</sup> Id.

<sup>16</sup> Id.

<sup>17</sup> Id.

setting, execution monitoring, and outcome analysis.<sup>18</sup> Through execution monitoring ICC reviews on a daily basis the changes generated by its risk management system and explains them in relation to known changes in cleared portfolios, prices, and market conditions.

If ongoing monitoring and validation identifies features of the risk management system that might indicate weakness in a Model Component, the Framework requires ICC to investigate and identify the root cause.<sup>19</sup> If weakness in a Model Component is discovered during investigation, the Framework requires the ICC CRO to inform the ICC Risk Committee of the results of the investigation.<sup>20</sup> ICC must then remediate the identified weakness through an appropriate Model Change, which passes through the required steps of the Framework starting with an Initial validation.<sup>21</sup>

The Framework sets forth the process for selecting independent validators and describes the independent validator criteria, including technical expertise and independence requirements. The Framework requires that the ICC CRO provide support and information to allow the independent validators to perform periodic reviews of all Model Components and related practices at least once in every calendar year.<sup>22</sup> At ICC's choosing, the scope of an independent periodic review may cover all Model Components used by the risk management system, or a subset of Model Components, as long as all

---

<sup>18</sup> Id.

<sup>19</sup> Notice, 83 FR at 27361.

<sup>20</sup> Id.

<sup>21</sup> Id.

<sup>22</sup> Id.

Model Components are included in one or more independent periodic reviews each year.<sup>23</sup> The independent periodic review must demonstrate that the Model Components remain fit for purpose; that the assumptions associated with the Model Components are still valid; that ICC has adequately addressed any open items of medium priority<sup>24</sup> from Model Change initial validations and any other implementation conditions; and that ICC has been complying with its ongoing monitoring and validation requirements and the Model Components are performing without any significant weakness.<sup>25</sup> The ICC CRO must present the periodic review to the ICC Risk Committee and describe ICC's plans in relation to any open high or medium priority items in the report.<sup>26</sup>

### III. Discussion and Commission Findings

Section 19(b)(2)(C) of the Act directs the Commission to approve a proposed rule change of a self-regulatory organization if it finds that such proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to such organization.<sup>27</sup> For the reasons given below, the Commission finds

---

<sup>23</sup> Id.

<sup>24</sup> The Framework defines as medium priority those items that reflect deficiencies in the Model Components, assumptions, usage, or compliance with stated procedures that create risks that ICC can mitigate with viable workarounds until it remediates them fully, within a reasonable timeframe agreed with the Risk Committee.

<sup>25</sup> Notice, 83 FR at 27361.

<sup>26</sup> Id.

<sup>27</sup> 15 U.S.C. 78s(b)(2)(C).

that the proposal is consistent with Section 17A(b)(3)(F) of the Act<sup>28</sup> and Rules 17Ad-22(b)(2), 17Ad-22(b)(3), 17Ad-22(b)(4), and 17Ad-22(d)(8) thereunder.<sup>29</sup>

A. Consistency with Section 17A(b)(3)(F) of the Act

Section 17A(b)(3)(F) of the Act requires, among other things, that the rules of ICC be designed to promote the prompt and accurate clearance and settlement of securities transactions and, to the extent applicable, derivative agreements, contracts, and transactions, as well as to assure the safeguarding of securities and funds which are in the custody or control of ICC or for which it is responsible, and, in general, to protect investors and the public interest.<sup>30</sup>

As described above, the Framework would provide a process for reviewing and enhancing ICC's risk management system. The Framework would also designate the personnel responsible for, and the governance process associated with, the successful operation and maintenance of the model validation procedures and would set forth the process and criteria for selecting independent validators.

Taken together, the Commission believes these aspects of the Framework would help ensure that ICC's risk management system appropriately and effectively addresses the risks associated with clearing security based swap-related portfolios by providing ICC a means for reviewing and enhancing the risk management system as needed. In providing for independent validators, the Commission believes the Framework would help ensure that ICC receives unbiased and objective views regarding its risk

---

<sup>28</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>29</sup> 17 CFR 240.17Ad-22(b)(2)-(4), (d)(8).

<sup>30</sup> 15 U.S.C. 78q-1(b)(3)(F).

management system, which would improve such review and enhancement. The Commission believes that both of these aspects of the Framework would improve the effectiveness of ICC's risk management system, thereby improving ICC's ability to manage the risks associated with clearing security based swap-related portfolios. Given that mismanagement of the risks associated with clearing security based swap-related portfolios could cause ICC to realize losses on such portfolios and disrupt ICC's ability to promptly and accurately clear security based swap transactions, the Commission believes that the Framework would promote the prompt and accurate clearance and settlement of securities transactions. Similarly, given that mismanagement of the risks associated with clearing security based swap-related portfolios could cause ICC to realize losses on such portfolios and threaten ICC's ability to operate, thereby threatening access to securities and funds in ICC's control, the Commission believes that the Framework would help assure the safeguarding of securities and funds which are in the custody or control of the ICC or for which it is responsible. Finally, for both of these reasons, the Commission believes the Framework would, in general, protect investors and the public interest.

Therefore, the Commission finds that the proposed rule change would promote the prompt and accurate clearance and settlement of securities transactions, assure the safeguarding of securities and funds in ICC's custody and control, and, in general, protect investors and the public interest, consistent with the Section 17A(b)(3)(F) of the Act.<sup>31</sup>

B. Consistency with Rule 17Ad-22(b)(2)

Rule 17Ad-22(b)(2) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to use margin requirements to limit

---

<sup>31</sup> 15 U.S.C. 78q-1(b)(3)(F).

its credit exposures to participants under normal market conditions and use risk-based models and parameters to set margin requirements and review such margin requirements and the related risk-based models and parameters at least monthly.<sup>32</sup>

As described above, the Framework would describe how ICC would review and enhance its risk management system, including the selection and use of independent validators. In doing so, the Commission believes that the Framework would help ensure that ICC's risk management system is appropriate and effective for dealing with the risks associated with clearing security based swap-related portfolios. The Commission believes that the Framework would also enable ICC to improve its margin requirements by allowing ICC to review and improve the models that generate such margin requirements. The Commission believes that these aspects of the Framework would improve ICC's use of margin requirements to limit its credit exposures to participants under normal market conditions and ICC's use of risk-based models and parameters to set margin requirements.

In addition, the Framework would describe ICC's process for execution monitoring, whereby ICC would review on a daily basis the changes generated by its risk management system and would explain those changes in relation to known changes in cleared portfolios, prices, and market conditions. The Framework would require ICC to then investigate any anomalies identified. In reviewing such changes and anomalies, the Commission believes ICC would review its margin requirements and the models that generate such requirements. Thus, the Commission believes the Framework would

---

<sup>32</sup> 17 CFR 240.17Ad-22(b)(2).

enable ICC to review its margin requirements and the models that generate such requirements on a daily basis.

Therefore, for the above reasons the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(b)(2).<sup>33</sup>

C. Consistency with Rule 17Ad-22(b)(3)

Rule 17Ad-22(b)(3) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to withstand, at a minimum, a default by the two participant families to which it has the largest exposures in extreme but plausible market conditions, in its capacity as a central counterparty for security-based swaps.<sup>34</sup>

As described above, the Framework would provide a process for reviewing and enhancing ICC's risk management system and would set forth the process and criteria for selecting independent validators. In doing so, the Commission believes that the Framework would help ensure that ICC's risk management system appropriately and effectively deals with the risks associated with clearing security based swap-related portfolios, including the risk associated with the default by the two participant families to which ICC has the largest exposures in extreme but plausible market conditions. The Commission believes that the Framework would also help ICC improve its guaranty fund requirements by allowing ICC to review and improve the models that generate such requirements. The Commission believes that these aspects of the Framework would help ensure that ICC effectively establishes and maintains financial resources sufficient to

---

<sup>33</sup> 17 CFR 240.17Ad-22(b)(2).

<sup>34</sup> 17 CFR 240.17Ad-22(b)(3).

withstand, at a minimum, a default by the two participant families to which ICC has the largest exposures in extreme but plausible market conditions.

Therefore, for the above reasons the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(b)(3).<sup>35</sup>

D. Consistency with Rule 17Ad-22(b)(4)

Rule 17Ad-22(b)(4) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for an annual model validation consisting of evaluating the performance of its margin models and the related parameters and assumptions associated with such models by a qualified person who is free from influence from the persons responsible for the development or operation of the models being validated.<sup>36</sup>

As discussed above, the Framework would require the ICC CRO to provide support and information to allow independent validators to perform periodic reviews of all Model Components and related practices at least once in every calendar year. The Framework would further provide that the scope of an independent periodic review may cover all Model Components used by the risk management system, or a subset of Model Components, as long as all Model Components are included in one or more independent periodic reviews each year. The Framework would also provide the process and criteria (including independence) for selecting independent validators. Finally, the Framework would describe the required components of an independent review and the documentation required to be produced by the independent validators.

---

<sup>35</sup> 17 CFR 240.17Ad-22(b)(3).

<sup>36</sup> 17 CFR 240.17Ad-22(b)(4).

The Commission believes these aspects of the Framework would enable ICC to validate the models underpinning its risk management system on an annual basis including the related parameters and assumptions associated with such models. The Commission also believes that by setting out the process and criteria (including independence) for selecting independent validators, the Framework would help ensure that such validations are performed by qualified persons free from influence from the persons responsible for the development or operation of the models being validated.

Therefore, for the reasons described above the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(b)(4).<sup>37</sup>

E. Consistency with Rule 17Ad-22(d)(8)

Rule 17Ad-22(d)(8) requires that ICC establish, implement, maintain and enforce written policies and procedures reasonably designed to have governance arrangements that are clear and transparent to fulfill the public interest requirements in Section 17A of the Act<sup>38</sup> applicable to clearing agencies, to support the objectives of owners and participants, and to promote the effectiveness of the clearing agency's risk management procedures.<sup>39</sup>

As discussed above, the Framework would describe the personnel responsible for, and the governance process associated with, the successful operation and maintenance of the model validation procedures. Specifically, the Framework would designate ICC's ROO as the Framework owner and would make the ROO responsible to the ICC

---

<sup>37</sup> 17 CFR 240.17Ad-22(b)(4).

<sup>38</sup> 15 U.S.C. 78q-1.

<sup>39</sup> 17 CFR 240.17Ad-22(d)(8).

President for the successful operation and maintenance of the Framework. The Framework would also designate certain responsibilities to ICC's CRO and the Risk Committee. The Commission believes that in doing so the Framework would allow ICC to establish clear and transparent arrangements for governing the Framework and its model validation procedures. The Commission further believes that these same arrangements would contribute to ICC's fulfilling the public interest requirements in Section 17A of the Act<sup>40</sup> applicable to clearing agencies, and the objectives of owners and participants. Finally, the Commission believes that these procedures and arrangements would promote the effectiveness of ICC's risk management procedures by clarifying the process for, and responsibilities associated with, using the Framework to improve ICC's risk management system.

Therefore, for the above reasons the Commission finds that the proposed rule change is consistent with Rule 17Ad-22(d)(8).<sup>41</sup>

#### IV. Conclusion

On the basis of the foregoing, the Commission finds that the proposal is consistent with the requirements of the Act, and in particular, with the requirements of Section 17A(b)(3)(F) of the Act<sup>42</sup> and Rules 17Ad-22(b)(2), 17Ad-22(b)(3), 17Ad-22(b)(4), and 17Ad-22(d)(8) thereunder.<sup>43</sup>

---

<sup>40</sup> 15 U.S.C. 78q-1.

<sup>41</sup> 17 CFR 240.17Ad-22(d)(8).

<sup>42</sup> 15 U.S.C. 78q-1(b)(3)(F).

<sup>43</sup> 17 CFR 240.17Ad-22(b)(2)-(4), (d)(8).

IT IS THEREFORE ORDERED pursuant to Section 19(b)(2) of the Act<sup>44</sup> that the proposed rule change (SR-ICC-2018-004) be, and hereby is, approved.<sup>45</sup>

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>46</sup>

Eduardo A. Aleman,  
Assistant Secretary.

---

<sup>44</sup> 15 U.S.C. 78s(b)(2).

<sup>45</sup> In approving the proposed rule change, the Commission considered the proposal's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

<sup>46</sup> 17 CFR 200.30-3(a)(12).

